

# Petroleum Industry Overview

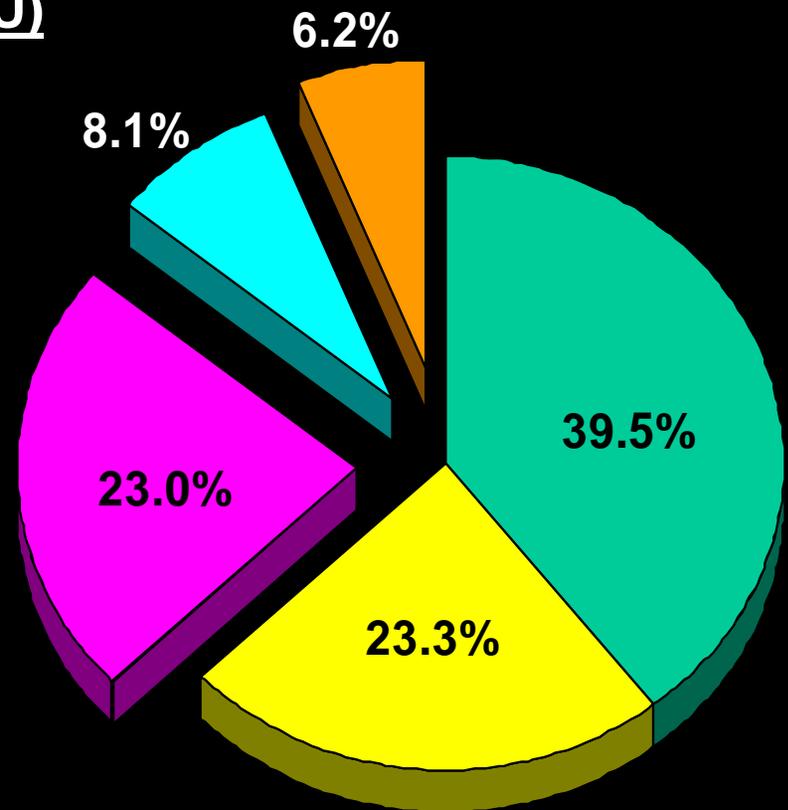






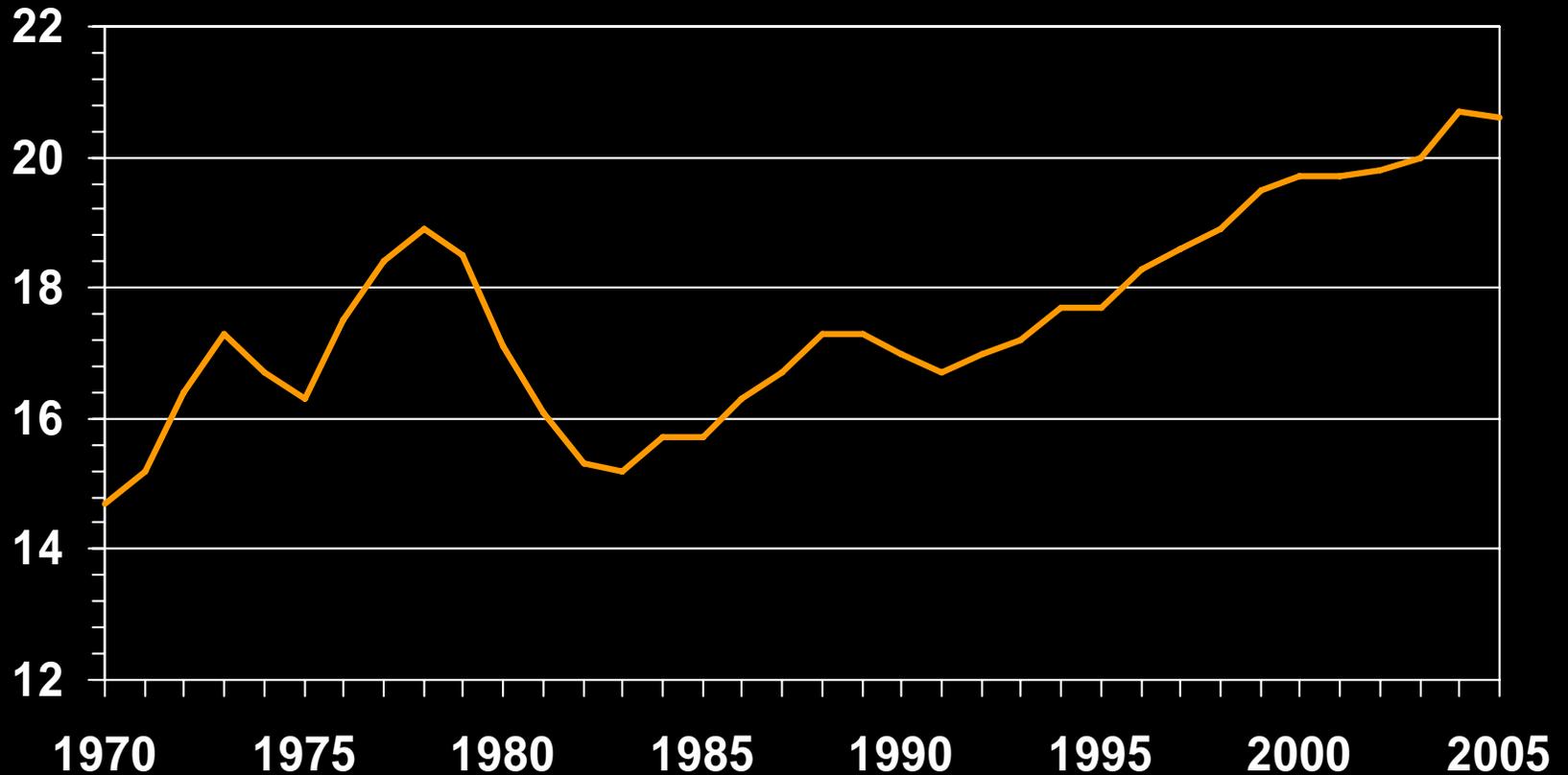
# Estimated U.S. Energy Consumption By Fuel Group - 2003

	Consumption (Quadrillion BTU)
<b>Petroleum</b> .....	<b>39.0</b>
<b>Natural Gas</b> .....	<b>23.0</b>
<b>Coal</b> .....	<b>22.7</b>
<b>Nuclear</b> .....	<b>8.0</b>
<b>Renewable</b> .....	<b>6.1</b>
<b>Total</b> .....	<b>98.8</b>



# U.S. Petroleum Demand

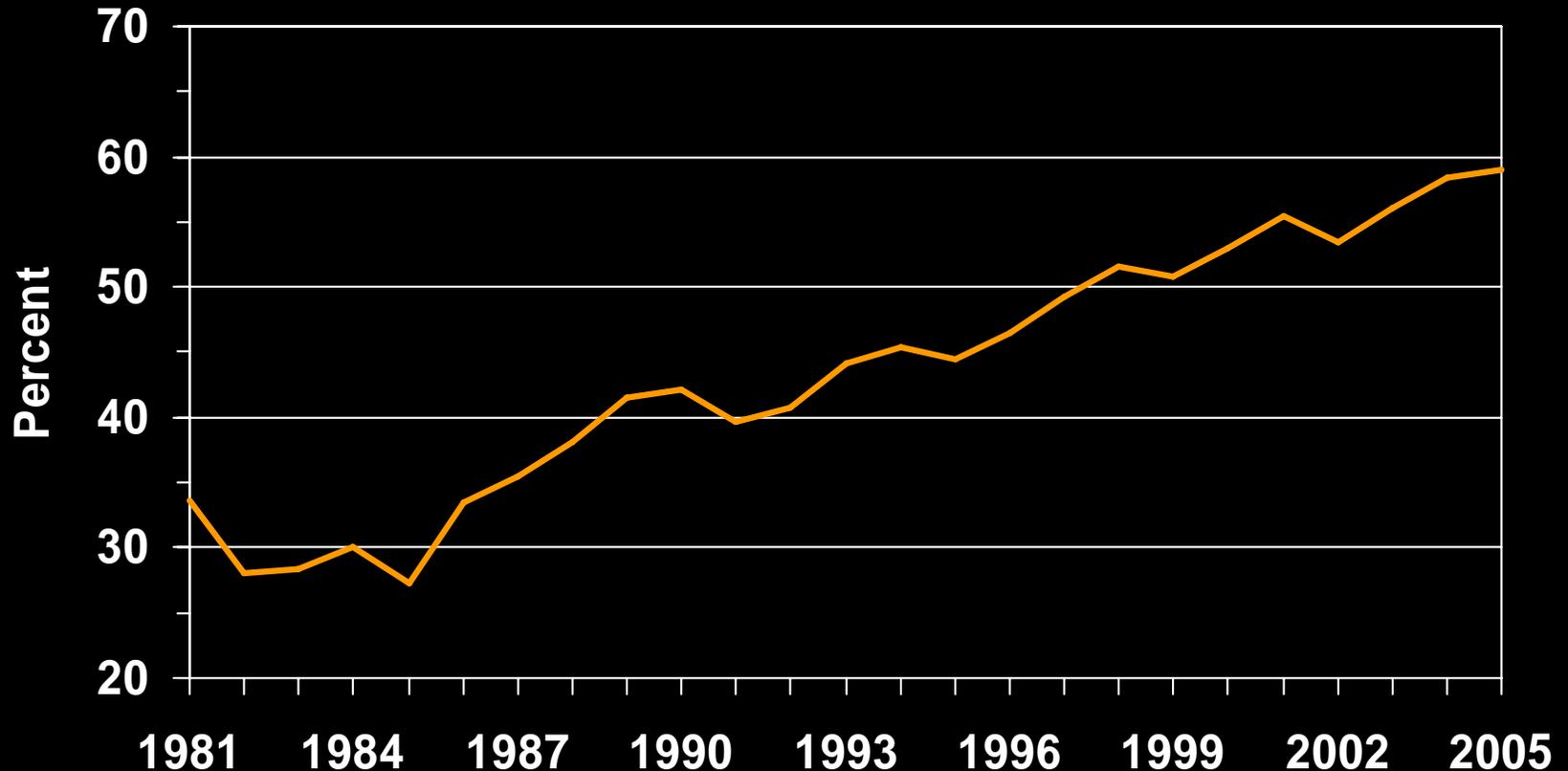
(Millions of barrels per day)



Source: Energy Information Administration

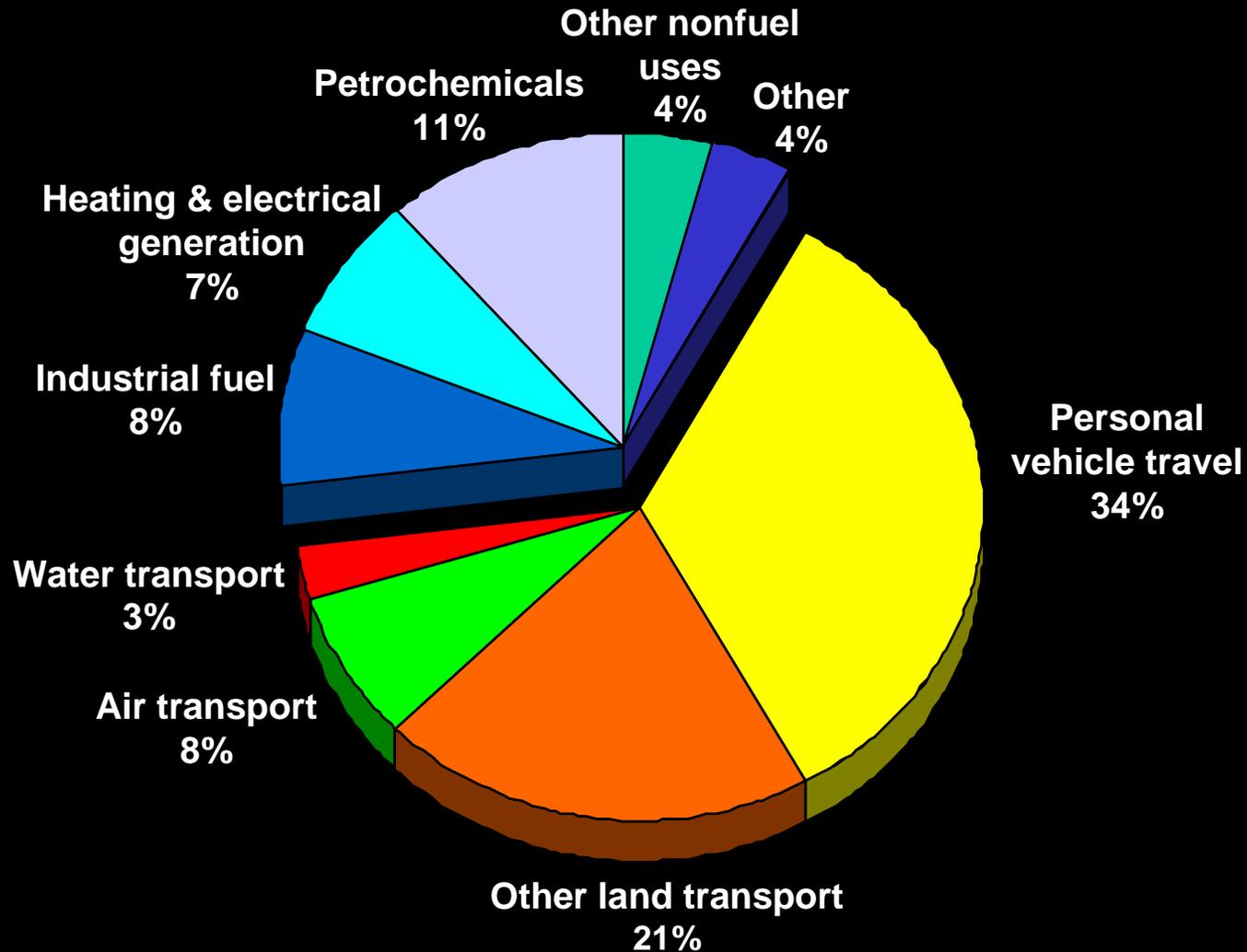
# U.S. Net Reliance on Oil Imports

(Net imports as a % of total U.S. petroleum supply)



Source: Energy Information Administration

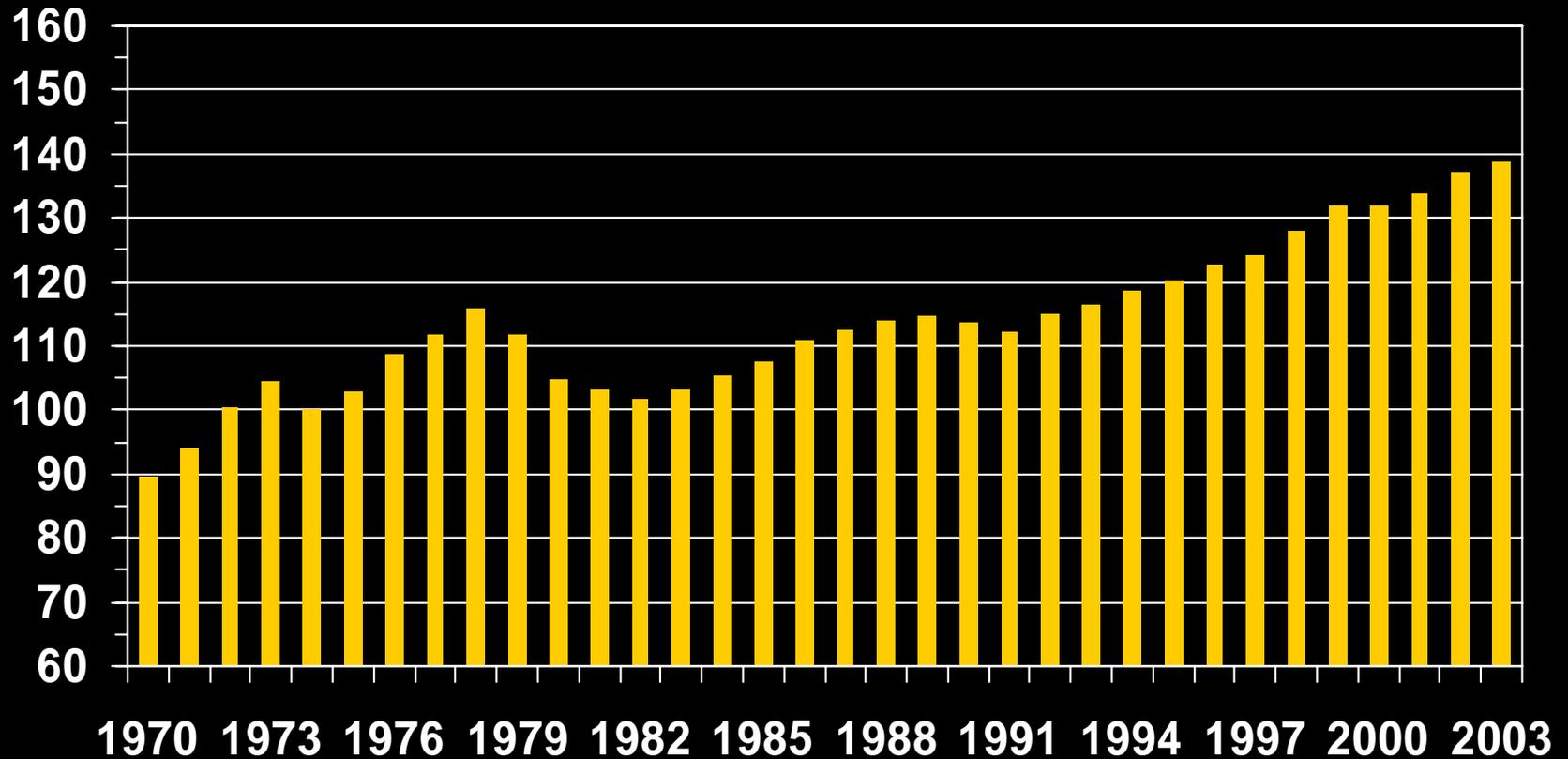
# Estimated Petroleum Consumption by End Use - 1997



Source: American Petroleum Institute

# U.S. Gasoline Consumption

(Billions of gallons)



Source: Federal Highway Administration

# Everyday Products Made from Chemicals Derived from Petroleum

perfume      panty hose      antihistamines  
glue      crayons      deodorants      lipstick  
umbrellas      food preservatives      golf balls  
balloons      dentures  
candles      dyes      aspirin      fertilizer      insecticides  
house paint      antiseptics      ink  
photographs      bandages      roofing shingles  
nylon rope      shampoo      toothpaste

# Petroleum Industry

- Industry segments
  - “Upstream”
  - “Downstream”

# Petroleum Industry

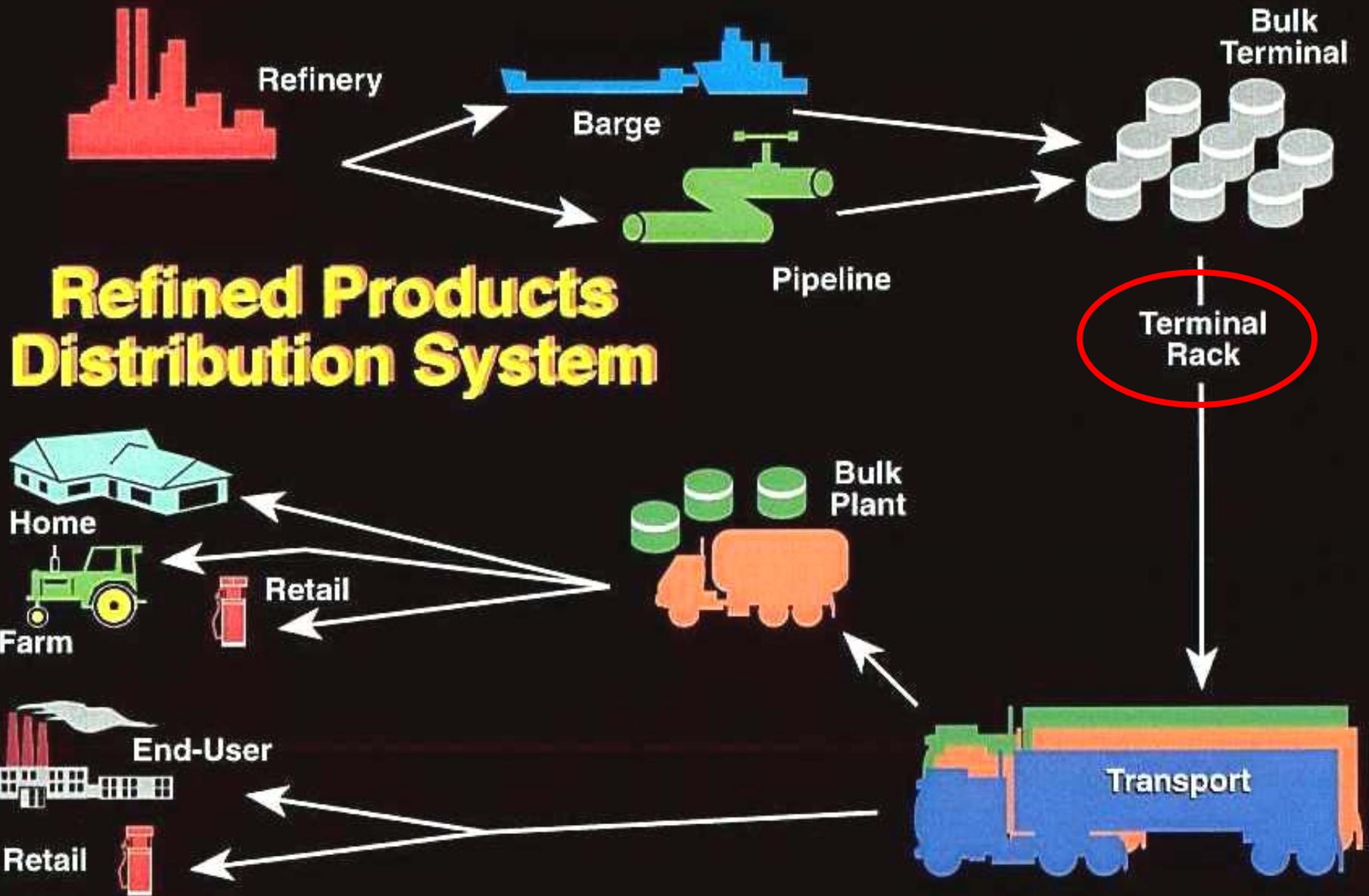


- “Upstream”
  - Exploration
  - Production

# Petroleum Industry

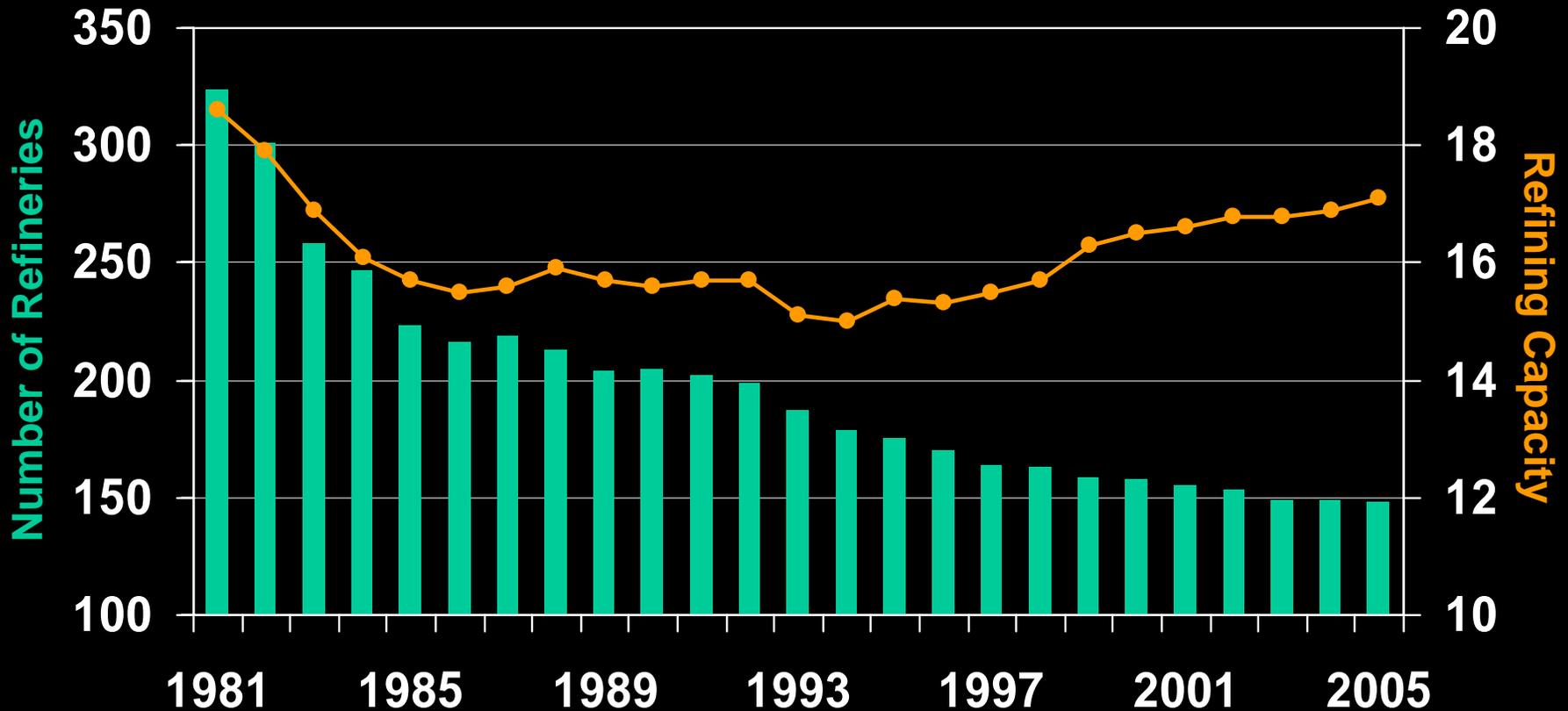


- “Downstream”
  - Refining
  - Transportation
  - Marketing





# Crude Oil Refining Capacity, U.S.



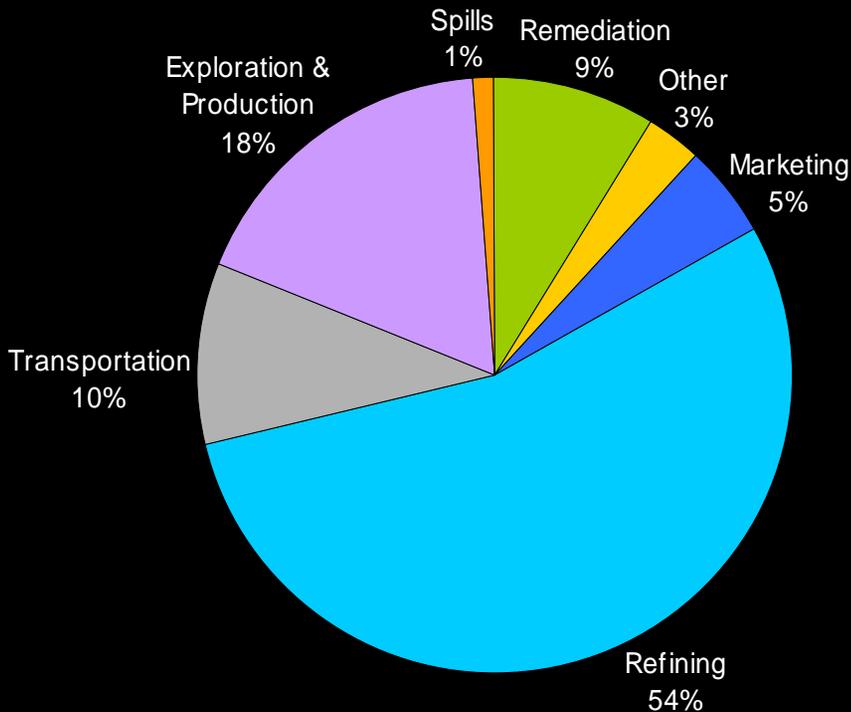
\* Crude oil distillation capacity (millions of barrels/day)

Source: Energy Information Administration

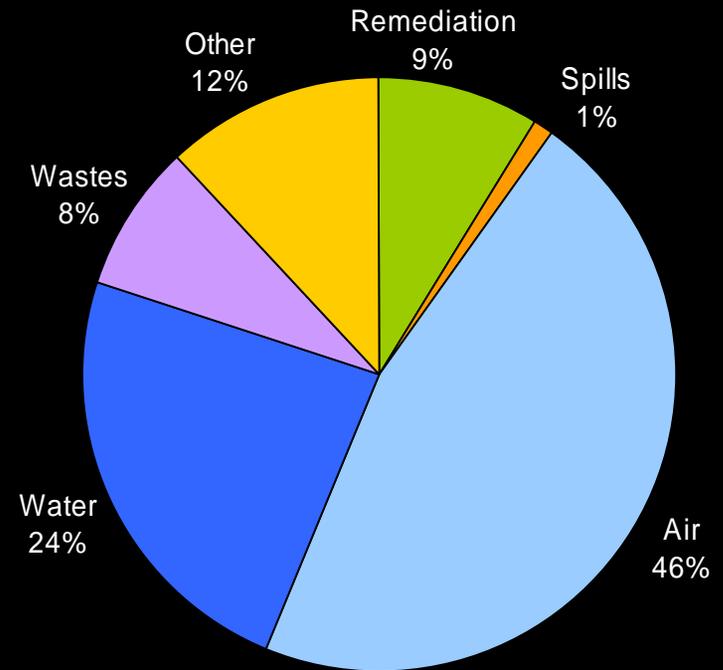
# Total U.S. Petroleum Industry Environmental Expenditures

1994-2003: \$88 billion

By Industry Sector

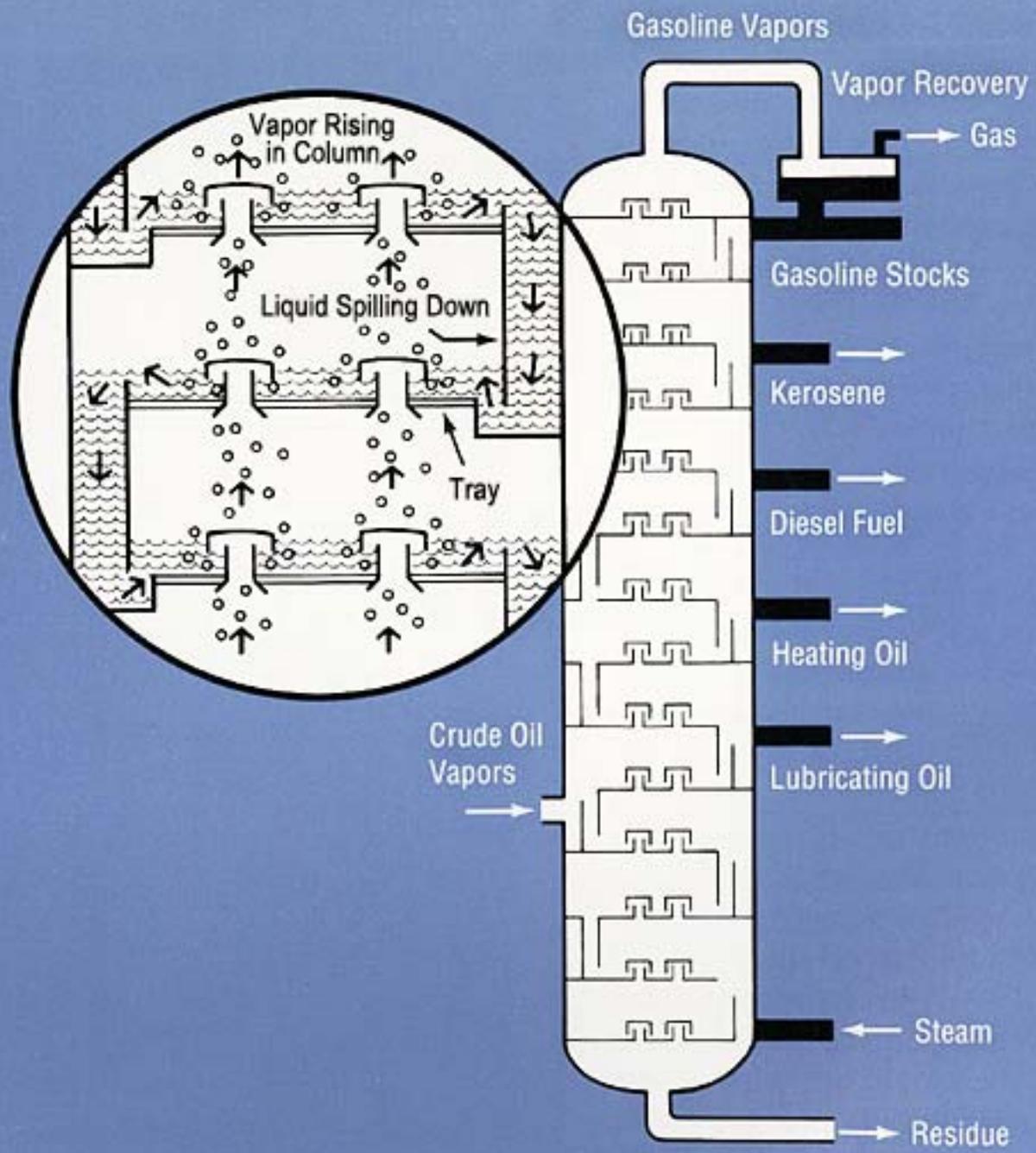


By Media

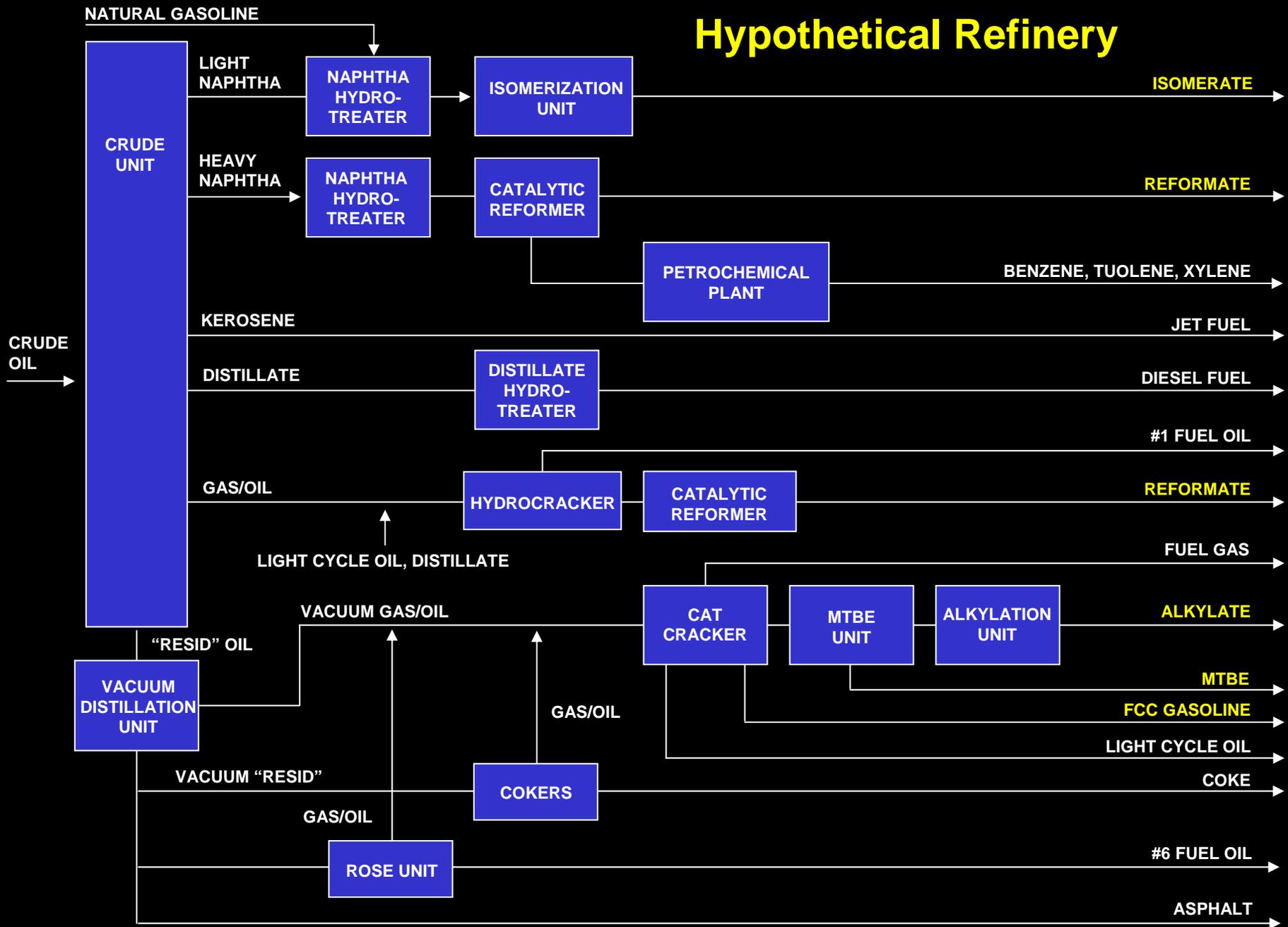








# Hypothetical Refinery



NOTE: GASOLINE COMPONENT

# Average Yield from a Barrel of Crude Oil

	Gallons
 <p>1 Barrel = 42 Gallons</p>	Gasoline ..... 19.7
	Distillate Fuel Oil ..... 9.7
	Jet Fuel ..... 4.3
	Residual Fuel Oil ..... 1.9
	Asphalt & Road Oil ..... 1.4
	Petrochemical Feedstocks... 1.1
	Lubricants ..... 0.5
	Kerosene ..... 0.2
	Other ..... 6.1
	<b>Total ..... 44.6</b>

Note: Based on average yields for U.S. refineries in 2000.  
Of the total, 2.6 gallons represent “processing gain.”

Source: American Petroleum Institute

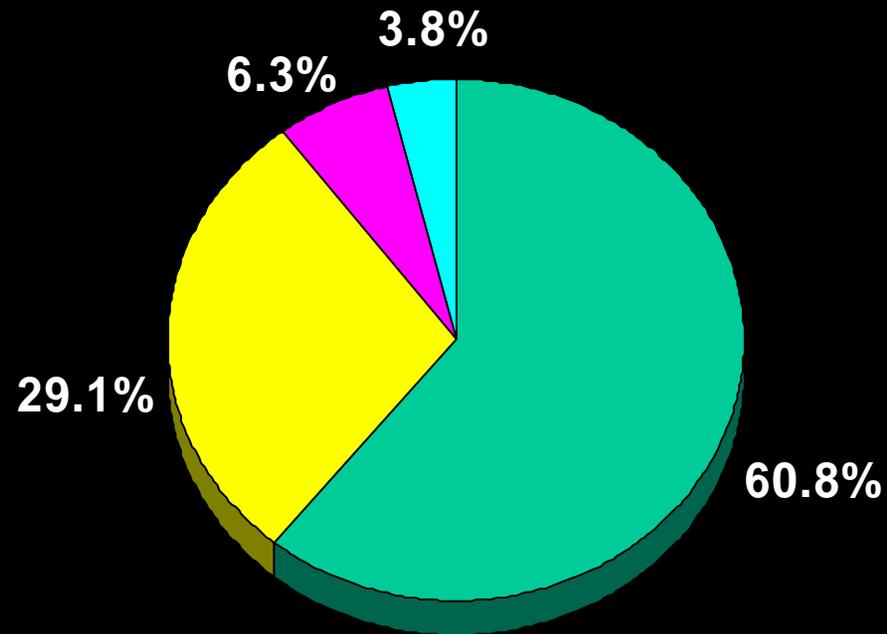


# Transportation

- Pipeline
- Marine
  - Barge
  - Tanker
- Rail
- Truck

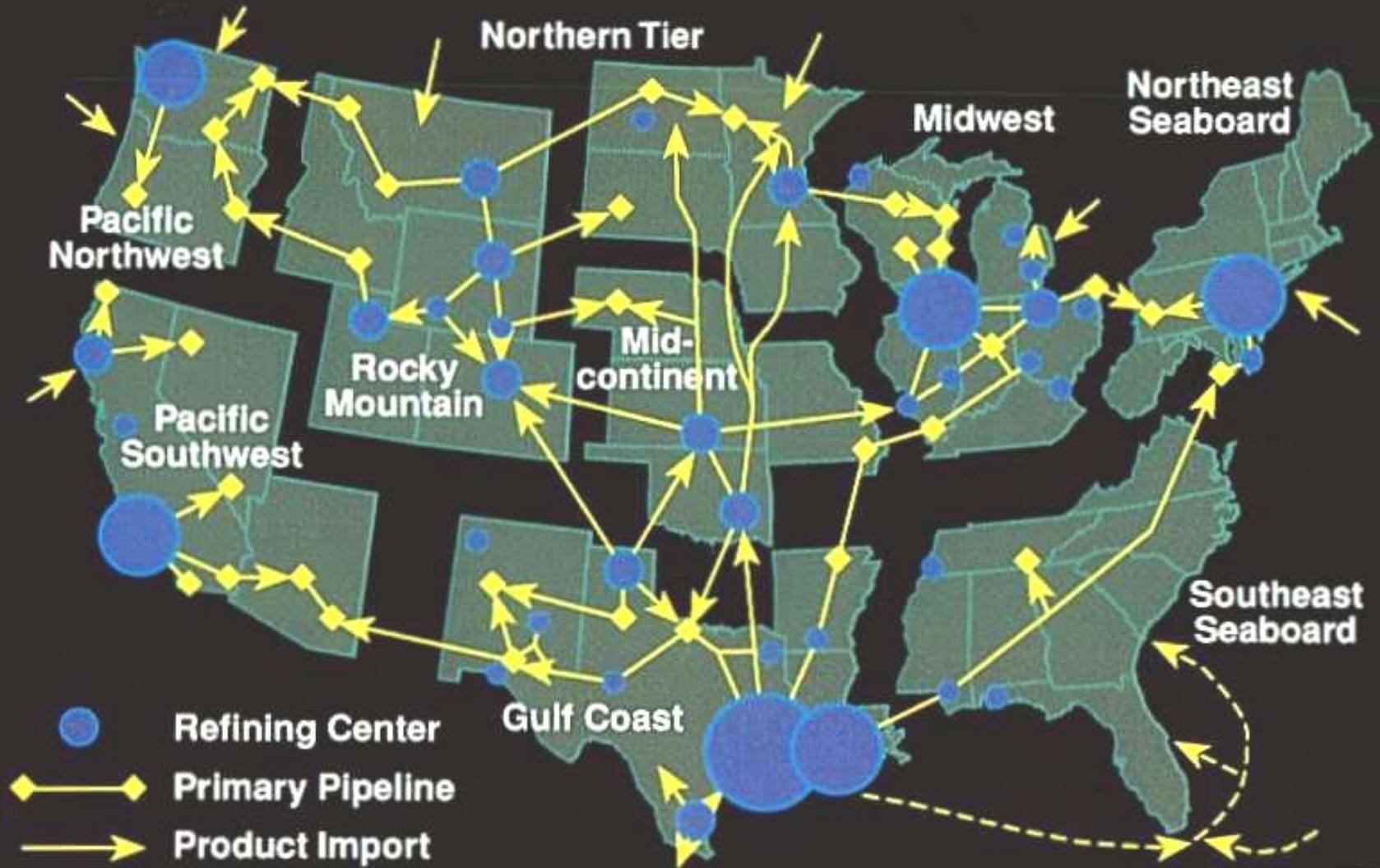
# Petroleum Products Carried in Domestic Transportation - 2003

	Ton-Miles (In Billions)
Pipelines .....	305.7
Water Carriers ...	146.0
Motor Carriers ...	31.9
Railroads .....	19.3
<b>Total .....</b>	<b>502.9</b>



Source: Association of Oil Pipe Lines

# U.S. Refined Products Distribution Network



# Pipelines

- Proprietary
- Common carrier

- Gas
- Liquids
  - Crude
  - Products

# Major Interstate and Intrastate Products Pipelines









**WARNING**  
**PETROLEUM**  
**PIPELINE**

BEFORE EXCAVATING OR IN EMERGENCY CALL TOLL FREE

ABC PIPELINE COMPANY  
5432100, U.S.A.  
1-800-000-0000



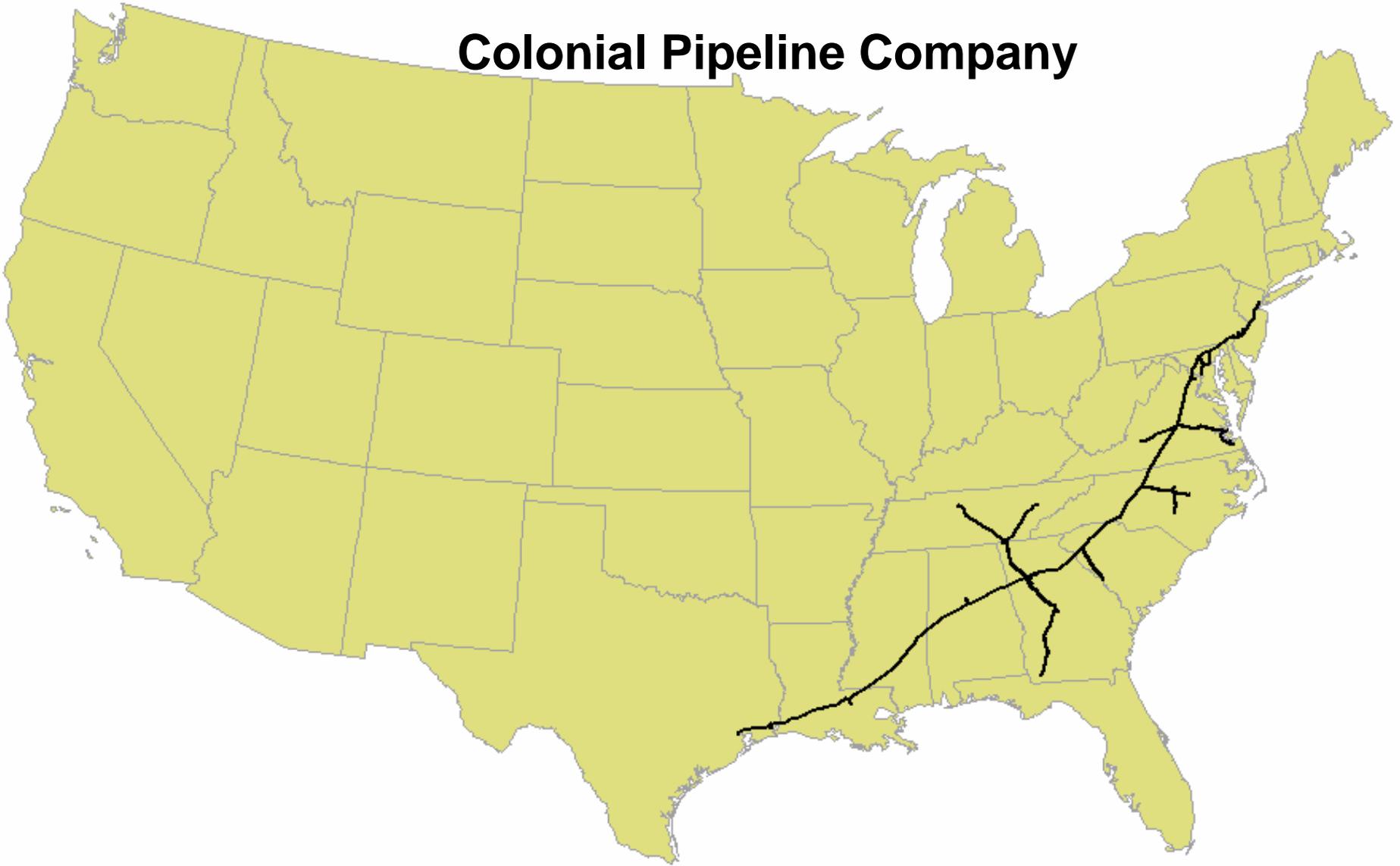
# Segregated



# Fungible



# Colonial Pipeline Company









# Product Terminals

Classifications of bulk petroleum terminals:

- Transshipment
- Truck loading

# Product Terminals

To be a registered bulk petroleum terminal with the IRS, a facility must ...

- Minimum 50,000 bbls. of storage capacity
- Be able to receive by:
  - Pipeline,
  - Barge, or
  - Rail
- Be able to load trucks (loading “rack”)





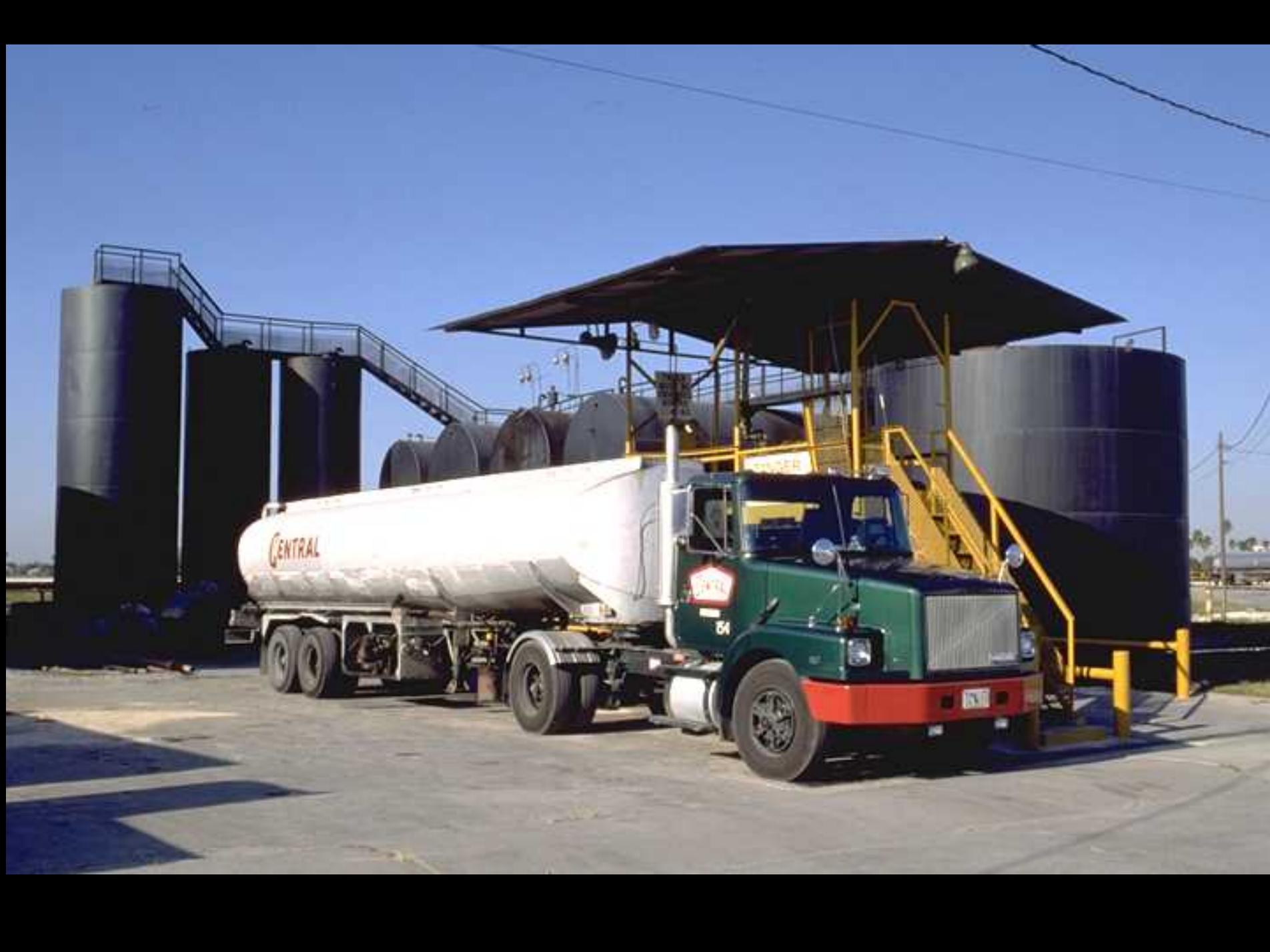


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# Petroleum Marketers

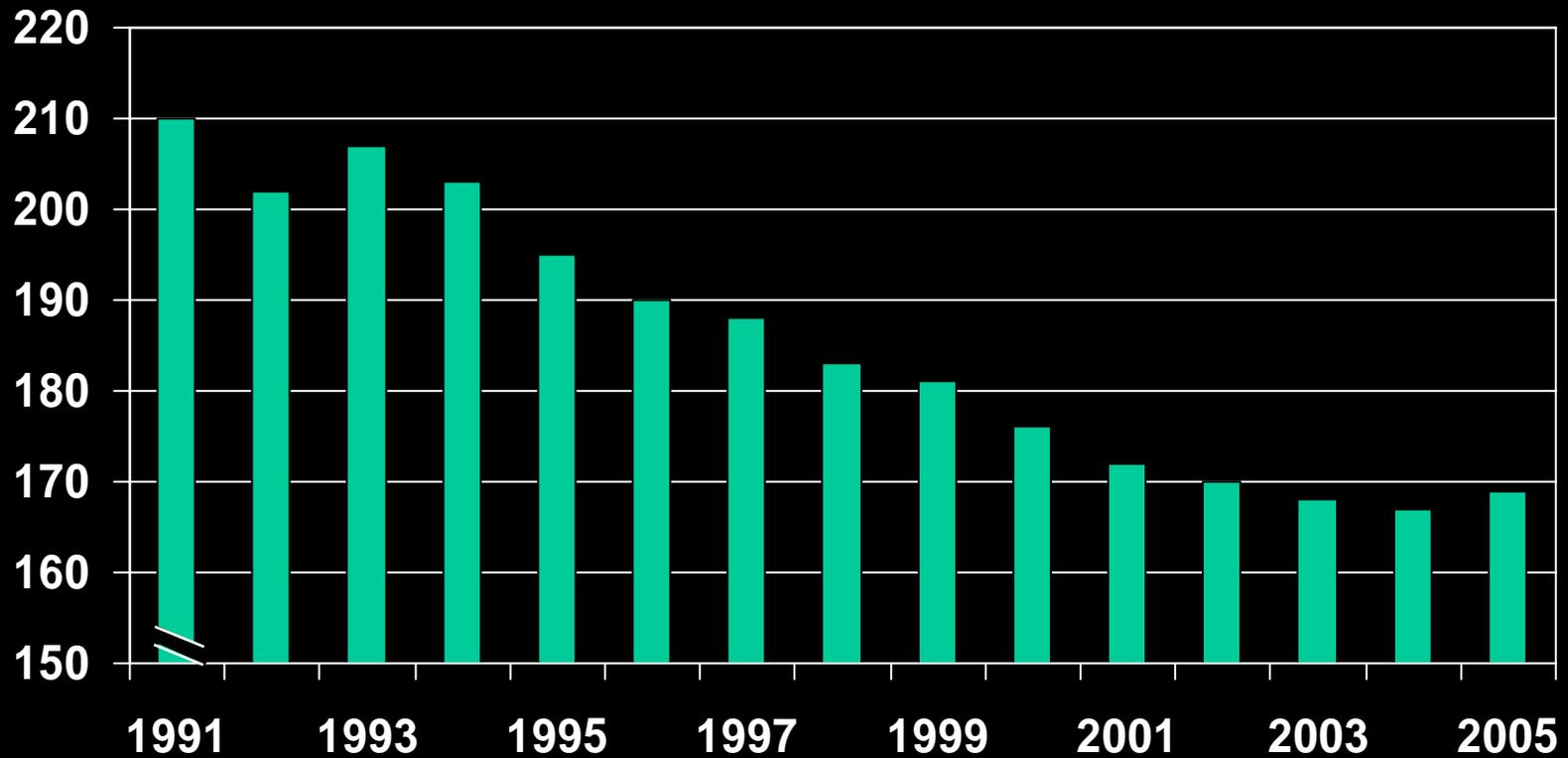
- Refiners
- Importers
- Brokers & traders
- Wholesalers
- Jobbers
- Distributors
- Retailers

# Motor Fuel Retailers

- Refinery-direct  
("company-op")
- Chain marketer
- Jobber
- Jobber-dealer
- Lessee dealer
- Owner-operator
- Grocery chains
- Hyper-marts  
("Big box" retailers)

# U.S. Service Station Population

Retail gasoline outlets (in thousands)



Source: National Petroleum News

**Questions?**